Page 59 interface. 1 Wouldn't be that effective if 0. they didn't, probably. 3 It would be ineffective. 4 Α. 5 Yeah. Are you familiar with the 0. 6 term user interface signal? 7 MR. TYSON: Objection. Foundation. 8 9 Α. I can understand it, but it sounds like something -- sounds more 10 1 1 legalese than technical. 12 And I'll make a note that 0. 13 there's a reference somewhere in Exhibit 14 4, and I will find that during a break and 15 point you to it and see if that provides 16 any more clarification. 17 Would you consider display to be 1 8 a term of art in the computer science 19 field? 20 Yes, both the noun and the verb. Α. 21 0. With respect to the noun, how would you define display in this field? 2.2 23 Α. It's a hardware component that 24 allows data to be displayed to a user. Does the noun version of display 25 Q.

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have any software elements in addition to the hardware component?

- A. Well, there is certainly software associated with a display that actually causes the display of data on the hardware display.
- Q. And is it accurate that -- strike that.

Is the software that can be associated with a display similar to user interface software in that there are a variety of different software programs available off the shelf that a person skilled in the art could select if they were trying to develop a display?

 $$\operatorname{MR}.$$ TYSON: I object to the form.

A. So the software that is associated with the hardware display is often called a driver, this is computer code that knows about the particular hardware and is able to interact with the hardware. That driver then can be used by either off-the-shelf user interface software or custom user interface software

to cause the display of a particular format that the user can see and interact with.

I just want to make sure I 0. understand that correctly, but is it fair to say then that a display would have associated software that would come along with it in the form of a driver that a person skilled in the art could then implement with a desired user interface? MR. TYSON: I object to the

form.

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- Α. Let me just state, you had it almost exactly right.
 - Q. Okay, please correct it for me.
- Yes, associated with a display is driver software that a developer can then use to either build a custom user interface or can find off-the-shelf user interface code to effect a user interface.
- And again, the driver software that is associated with the display, what was the, again, the functionality that it provides?
 - That's the -- the low level Α.

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and the type of message, one of skill would understand the format of the message, but of course wouldn't know what the content is.

- Q. Would you consider the format of a message to be structure in the context of the claim?
- A. For a given communications protocol, the format of a message is one aspect of structure, in other words, how one communicates. Again, it doesn't say anything about the content of the message.
 - Q. Understand, yeah, understand.

So just to recap, some of the structural elements that we identified in claim one, we have mobile device, a display of a mobile device, the broadcast short-range communications unit, reference to a server, there was reference to various communication protocols, and finally, we just discussed the message, and the message pursuant to protocol having a format.

A. So -- so the particular format of a message for a particular protocol is

Page 85 1 one aspect of -- of structure, yes. 0. Okay. And the other elements that I mentioned, mobile device, display, 3 you would agree that those are structural 4 5 aspects as well? 6 Α. Yes, I believe so. 7 And also when we refer to the 0. communications protocol itself, that 8 9 provides information on the structural 10 aspects? 1 1 MR. TYSON: I object to the 12 form. 13 Α. Well, certainly Bluetooth does 14 provide structure about certain -- certain 15 aspects of the claim, and given the term 16 communications protocol, one of skill 17 would know what the range of choices are 1 8 for communication protocols, they could 19 fill that in with their knowledge. 20 Okay. There are -- and I think 0. 21 we talked about this, you said 20 or 30 2.2 protocols that you're familiar with. 23 Yes, but only a handful are Α. 24 widely used.

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Q.

Understand, okay. I think it's

Page 98 participate in that second wireless 1 2. communications protocol, right? 3 Α. Yes. So you would agree that claim 11 4 0. 5 has essentially the same structural 6 components that we discussed with respect to claims one, seven and nine with the 7 exception of the difference between 8 9 application and computer code, is that 10 fair? 1 1 Yes, these -- the claims that we 12 reviewed do have the elements that we've 13 discussed that provide some structure. 14 And you would agree that the --0. 15 taking claim 11, for example, that the 16 later reference to said application or 17 mobile device application, that that would 1 8 inform what was being referred to as the 19 an application on line 65 of column 35? 20 MR. TYSON: I object to the 21 form. 2.2 Α. Well, I would say those 23 references to said application and mobile 24 device application refers to the an 25 application introduced on line 65 of

Page 99 1 column 35. Ο. Okay. And so to the extent that 3 the later references in the claim include additional structural components, like 4 5 compliant with a different communications 6 protocol, that that would inform the 7 application that is part of disputed claim six, is that fair? 8 9 MR. TYSON: I object to the 10 form. 1 1 It would describe some aspects, Α. 12 some additional aspects of the application 13 mentioned in disputed claim six, of course 14 only some of the aspects. 15 0. Understood, but it would give a 16 person skilled in the art some information 17 about the structure and meaning of the 18 application, fair? 19 MR. TYSON: I object to the 20 form. 21 It would give some additional 2.2 information, I agree with that. 23 MR. DAHLGREN: Now there is a 24 disputed -- well, I don't know what 25 time it is, if this is a good time for

is essentially broader than displaying some visual information on the mobile device's display?

- A. I think one of skill reading that would realize that this may be -- this may be broader, that as long as you're causing the information to be output and you're using the mobile device to do so in some way, then maybe that reads on this claim. It's hard to know.
- Q. Okay. So going back, we were starting on, excuse me if I'm wrong, we did disputed claim term ten, correct, and we did 11?
 - A. Yes.

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- Q. We did the 899 patent claim seven, nine and 11 for disputed claim terms 11, is that right?
 - A. I believe so.
- Q. You would agree that -- I mean, as we -- actually, take that back.

Yes, I think we did ten and we started on 11 with claim seven, disputed claim term 11 is present in claims seven, nine and 11 of the 899 patent. Claim

seven and nine refer to computer code, claim 11 refers to application, I believe?

A. Yes, that's correct.

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- Q. So aside from those differences, you would agree that the structural elements that we have discussed with respect to claims seven, nine and 11 of the 899 patent would inform a person of ordinary skill in the art's understanding of disputed claim term 11? And if you need me to point to where those are present in any of the other claims, please let me know.
- A. No, I think my testimony about claim seven, about what -- what one of skill would and would not understand with regard to disputed claim term 11 applies to claim nine of the 889 patent as well.
 - Q. Okay. And also claim 11?
- A. Yes, my opinions I've just expressed about claims seven and nine with respect to claim term 11 also apply to claim 11 of the 899 patent.
- Q. So for 11, disputed claim term
 11, it's also present in claim one of the

292 patent, and claim one again of 292 patent begins on column 30 of Plaintiff's Exhibit 2.

The language of disputed claim term 11, I believe, is on column 32 with the exception of, I think, the said code when executed further configured to, not preamble, but the, kind of, opening, and then it's ellipsed to line four of column 32, do you see that?

A. I do.

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- Q. Okay. And so again, the structural elements that we've identified in claim one of the 292 patent, you would agree that those structural components would inform a person of ordinary skill in the art's understanding of disputed claim term 11, is that fair?
- A. Yes, that's fair. And let me just repeat my -- the caveat, that the cause to be output limitation, because it doesn't say on which display or how the visual information is output, I don't think is informed by the structural element discussed which is the display of

Page 138 1 a mobile device. 2. 0. Okay. So in that case for that 3 particular part of disputed claim term 11, it's your position that the display of the 4 5 mobile device may not have bearing on the 6 output via the at least one mobile device, 7 is that fair? Yes, in fact, one can't tell if 8 Α. 9 it has bearing or not. 10 Okay. Now, you would agree, Ο. 1 1 however, that the code that is referenced 12 in claim one of the 292 patent that is 13 further configured to achieve disputed claim term 11, that that code is the same 14 15 code that is referred to on line seven of 16 column 31 that also is configured to cause 17 display via display of the at least one 1 8 mobile device of an option for causing, et 19 cetera, do you see that? 20 MR. TYSON: I object to the 21 form. 2.2 I do, I see the line, the cause Α. 23 display via a display limitation starting 24 at line ten.

And so the code that is being

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0.

Page 139 referred to as being configured to cause a 1 2. display, that's the same code that is 3 further configured to achieve disputed claim term 11, correct? 4 5 MR. TYSON: I object to the 6 form. 7 I agree that the said code at line 64, which is further configured to 8 9 contain certain features recited in the 10 subsequent limitations, is the same code 1 1 as found on line eight of column 31. 12 And so with that understanding, 0. you would agree that the reference to 13 14 configured to cause display via display of 15 at least one mobile device, that would 16 still inform a person of ordinary skill in 17 the art regarding how the code should be 1 8 interpreted, and that is the same code 19 that is involved in disputed claim term 20 11, right? 21 MR. TYSON: I object to the 2.2 form. 23 What I would say, the same code 24 as identified as causing to the display

via a display of the mobile device an

Page 140 option is the same code, in other words, a 1 2. part of the same code base, as the code 3 that is claimed to cause to be output via at least one mobile device, either the 4 5 first or second visual information in 6 column 32. It's the same set of code, but 7 I think that's all you can say. 8 0. Yes, and my point is only that 9 because that earlier discussion of display 10 does have some bearing on scope of the 1 1 code and the meaning of the code, that a 12 person skilled in the art would understand 13 that it would have some bearing on the 14 interpretation of disputed claim term 11. 15 MR. TYSON: I object to the 16 form. 17 For example, they would 1 8 understand that the code is configured to 19 achieve both of the claim elements, is 20 that fair? 21 MR. TYSON: I object to the 2.2 form. 23 Yeah, I think what's fair to say

is that the code, which has many features,

as claimed, has the feature of being able

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Page 164 1 input is received. 0. Yes, and you see before column 3 29, it says received an indication, and then later in column 30, it refers to the 4 5 indication? 6 Α. Yes, I see that. 7 0. And you're familiar with patent drafting, that the first time something is 8 9 introduced, it's like an or a, and then 10 later it's the or said? 1 1 Yes. Α. 12 Okay. So going back to the Q. 13 question I was asking before, if you look at disputed claim term 16 and what the 14 15 system is configured to do, much of 16 those -- strike that. 17 Going back to my earlier 1 8 question, if you look at disputed claim 16 19 and what the system is configured to do in 20 that wherein clause, much of that is -appears to be done by kind of 21 2.2 subcomponents of the system, is that fair? 23 Generally speaking, I would say Α. 24 yes, but it talks -- where the wherein 25 clause talks about the system being

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configured to do something, it could refer to one of the already mentioned components of that system doing it.

Q. That was -- you made that point much more succinctly than I was able to do.

And so again, looking at this, the wherein clause recites that the system was configured to achieve the limitation of disputed claim term 16, it's not adding any new or separate structural element to the claim, is that fair?

- A. It's not adding any new component, but rather describing what the system already introduced can also do or perhaps constraining what the system can do.
- Q. Okay. And as we discussed, that system is all of the components that were recited in claim one, essentially, correct?
 - A. Yes.
- Q. Okay. And so here as system is defined as all these various components in claim one of the 899 patent, you would

laid out in claim seven.

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- Q. And turning to claim nine, the same question, and again, this is disputed claim term 19 language at the bottom of column 34, but again, you would agree that because the system recited in the wherein clause does not add any additional structural components to the claim that are not already present, correct?
- A. So as I've testified in my previous answer, in fact, the system referred to at the bottom of column 34, line 59 is the system of claim nine introduced at line 47 of column 33 consisting of a collection of components already set forth in the claim nine.
- Q. Okay. Now, if we look at disputed claim 20, we have a wherein clause, this time -- I'm trying to find where it is here -- it refers to the application, and this is claim 11 of the 899 patent, and you can see the disputed language of claim term 20 towards the bottom of column 36.
 - A. Give me a moment to look at

Page 183 1 that --0. Sure. 3 -- disputed claim 20. Can you Α. repeat where in claim 11 I could see that? 4 5 In claim 11, I believe that you 0. will find it around line 53 of column 36. 6 7 Further wherein, the application when executed is configured to permit a 8 9 determination as to whether the one or 10 more mobile device application actions 1 1 including causing to be output to visual 12 information is triggered. 1 3 Α. Okay, I see it, thank you. 14 And that was not grouped in the 0. 15 system claims in your declaration, and 16 just so you know, you address it beginning on page 49, it appears. 17 1 8 Yes, that's true. Α. 19 So I wanted to make that 0. 20 clarification, not to steer you wrong. 21 Now, you would agree that the 2.2 application in disputed claim term 20 is 23 the same application that is recited on 2.4 line 65 of column 35 that's also in claim 25 11 of the 899 patent?

Page 184 1 Α. I agree. 2. Ο. And it's also the same 3 application that's referred to in column -- excuse me, column 36, line 32? 4 5 Α. I agree. 6 0. And so you'd agree that the use 7 of the wherein clause referring to the application is not adding an additional 8 9 component to claim 11 of the 899 patent, 10 right? 1 1 I agree, it's specifying Α. 12 additional function of the said 13 application. 14 Turning to disputed claim 21, 0. 15 disputed claim term 21 found in claims 16 seven and nine of the 899 patent. 17 beginning with claim seven --18 Give me a moment --Α. 19 Ο. Sure. 20 -- to read disputed claim term Α. 21 21. 2.2 Ο. Yes, disputed claim term 21, and 23 I think it will just inform your reading 24 of claim seven if you note that in column 25 32, line 58 there is a break where it's

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Q. Okay. You would agree that there's standard modules of software code that are well known and can be identified by name as connoting sufficient structure in a claim?

 $ext{MR. TYSON:} \quad ext{I object to the}$ form.

- A. I mean, I'd have to -- I guess I'd have to see the context, but if they were identified by name in a claim, I suspect that would provide some -- some structure, but I'd have to look at the actual example.
- Q. And I don't know if, like for example, a Bluetooth communication protocol would be considered like a standard module software code identified by name, that might be a bad example.
- A. I'd have to see the context, but as we've discussed, you know, reciting the Bluetooth communications protocol does inform one of skill about certain features of the Bluetooth --
 - Q. Okay.
 - A. -- system.